

Gulf Cooperation Council

EDICT OF GOVERNMENT

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GSO 1918 (2008) (English): Barley (Draft Standard)



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STANDARDIZATION ORGANIZATION FOR G.C.C (GSO)

نهائي :مشروع

GSO 5/FDS..... /2008

الأعلاف الحيوانية – حبوب الشعير ANIMAL FEEDINGSTUFFS — BARLEY

إعداد

الغذائية والزراعية اللجنة الفنية الخليجية لقطاع مواصفات المنتجات

هذه الوثيقة مشروع لمواصفة قياسية خليجية تم توزيعها لإبداء الرأي والملاحظات بشأنها،
لذلك فإنها عرضة للتغيير والتبديل، ولا يجوز الرجوع إليها كمواصفة قياسية خليجية إلا بعد
اعتمادها من مجلس إدارة الهيئة الخليجية.

Foreword

Standardization Organization for GCC (GSO) is a regional Organization which consists of the National Standards Bodies of GCC member States. One of GSO main functions is to issue Gulf Standards /Technical regulation through specialized technical committees (TCs).

GSO through the technical program of committee TC No 5 " The Gulf Technical Committee for Food and Agricultural Standards Products" has prepared this Standard . The Draft Standard has been prepared by **(KINGDOM OF SAUDI ARABIA)**

The draft Standard has been prepared based on relevant ADMO, International and National foreign Standards and references.

This standard has been approved as Gulf (Standard / Technical Regulation) by GSO Board of Directors in its meeting No..../....
.....held on / / / H , / / G

ANIMAL FEEDINGSTUFFS—BARLEY

Date of GSO Board of Directors' Approval :
Issuing Status :

ANIMAL FEEDINGSTUFFS — BARLEY

1- SCOPE AND FIELD OF APPLICATION

This standard is concerned with six rowed barley and two barley used as animal feedingstuff.

2- COMPLEMENTARY REFERENCES

- 2.1** GSO 245 "Cereals - Sampling (as grain)".
- 2.2** GSO 327 "Methods of Test for Wheat Grains".
- 2.3** GSO 328 "Wheat Grains".
- 2.4** GSO 382 "Maximum Limits for Pesticide Residues in Agricultural and Food Products - Part 1".
- 2.5** GSO No. 383 "Maximum Limits for Pesticide Residues in Agricultural and Food Products - Part 2".
- 2.6** GSO No. 721 "Storage of Cereals and Pulses - Part 3: Control of Attack by Pests".
- 2.7** GSO 841 "Maximum Limits of Omycotoxins Permitted in Foods and Animal Feeds (Aflatoxins)".
- 2.8** GSO 952 "Cereals and Pulses - Determination of Hidden Insect Infestation - Part 2: Sampling".
- 2.9** GSO 988 "Radioactivity Levels Permitted in Foodstuffs - Part 1".
- 2.10** GSO 998 "Method for Detection of Permissible Radionuclide Limits in Foodstuffs - Part 1".

2.11 GSO/.... “Method of Determination of Maximum Limits for Aflatoxin Permitted and Food and Feed (Aflatoxins)”.

3- DEFINITIONS

3.1 **Barley grains (kernels):** Whole kernels of cultivated barley from types six rowed barley Hordeum vulgare L. and two rowed barley H. distichum L.

3.2 **Sound (whole) grains (kernels):** Barley with less than 1/4 of the kernel broken.

3.3 **Broken grains (kernels):** Barley with more than 1/4 of the kernel broken.

3.4 **Thin grains (kernels):** Barley kernels and other materials which are removable by means of impurities instrument by specific method, provided that size openings of the instrument for two rowed barley shall be 2.184 mm x 19.05 mm and 1.981 mm x 19.05 mm for six rowed barley.

3.5 **Damaged grains (kernels):** Whole and broken kernels of barley, other cereal grains which were damaged by heat, insects, molds, diseases or any other factors.

3.6 **Other grains (kernels) or seeds:** Includes cereals or seeds other than barley such as: corn, sorghum, oats, rye, rice, wheat, soybeans, flax seed, sunflower.

3.7 **Harmful and/or toxic seeds:** Seeds being toxic or harmful to health or causing an undesired effect on odour, taste, colour or the possibility of milling barley grains.

3.8 **Foreign materials:** Includes all other matters other than barley and other grains.

3.9 **Stones:** Concreted earthy, mineral matters, and other hard substances which do not disintegrate in water.

3.10 **Ergot:** Is a fungus disease, occasionally occurs in barley grains by the fungus claviceps purpurea.

3.11 **Total impurities (dockage):** Includes all matters mentioned from item 3.3 to item 3.10 whether single or combined, with regarding the maximum limit for each of them.

4- REQUIREMENTS

The following requirements shall be met in barley grain (kernels).

4.1 The product shall have the characteristic size, colour, shape, taste and odour of barley.

4.2 In case of imported barley, it shall be coloured with Carmosine - Azrobine (E 122) with a percentage not less than 5% and not more than 10% in relation to the quantity of the barley provided that the whole sample is homogenously mixed.

4.3 The residues of pesticides in the grains shall not be in excess of the limits prescribed in GSO mentioned in items 2.4 and 2.5.

4.4 Limits of radiation levels in the grains shall not exceed the levels prescribed in GSO mentioned in 2.9.

4.5 Limits of mycotoxins in grains shall not exceed the levels prescribed in GSO mentioned in item 2.7.

4.6 It shall be free from insects, harmful and/or toxic seeds according to GSO mentioned in item 2.3.

4.7 The following requirements shall be met in barley grains (kernels) (Table 1).

TABLE (1)
Quality Requirements for Barley Grains

Quality Requirements	Grade 1	Grade 2
Sound (whole) grains (min.)	97 %	94 %
Broken grains (max.)	4 %	8 %
Thin grains (max.)	4 %	15 %
Damaged grains (max.)	2 %	4 %
Heat damaged grains (max.)	0.2 %	1 %
Other grains or seeds (max.)	2 %	5 %
Harmful and/or toxic seeds (max.)	0.1 %	0.1 %
Foreign materials (max.)	1 %	3 %
Stones (max.)	0.5 %	1 %
Grain infested with ergot (max.)	0.05 %	0.05 %
Total impurities (dockage) (max.)	4 %	12 %
Test weight (Kg/h) (min.)	60.5	55
Weight of thousand grains (as received) (min.)	35 g	30 g
Moisture content (max.)	12 %	12 %
Protein content (N* X 6.25) (min.)	10 %	7 %

N* : Percentage of nitrogen.

NOTE: In case of receiving internal barley grains not comply with requirements mentioned in table (1), their quality requirements shall be defined according to local rules enforced in the authority concerned with receiving local barley from farmers in the GSO.

5- PACKAGING, TRANSPORTATION AND STORAGE

The following requirements shall be met during packaging, transportation and storage:

5.1 Packaging

5.1.1 Barley grains (kernels) shall be packed in new, clean, suitable and low moisture transmitting containers that are uniform in measurements and weights.

5.1.2 Containers shall be capable of protecting the barley from insects and contamination.

5.1.3 Barley grains (kernels) may be packed in bulk.

5.2 **Transportation**

5.2.1 Conditions of transportation shall be such as to protect the barley from changes in climate, insect, rodent attacks or contamination.

5.2.2 The transportation means shall not have been previously used for the transportation of insecticides, fungicides or any other toxic or harmful substances.

5.3 **Storage**

5.3.1 Storage shall be done according to the GSO mentioned in item 2.6.

6- **LABELLING**

The following information shall be declared on the labels of the product and it shall be attached with shipping documents in case of bulk packaging provided that the Arabic language shall be one of the languages used:-

- Name of the product and trade mark (if found)
- Class
- Grade
- Name and address of producer or packer
- Production date or packaging date
- Origin (country)
- Any chemical treatments for grains (if added)
- Using purpose.

7- TESTS

7.1 Sampling

Samples shall be taken according to the Gulf standards mentioned in items 2.1 and 2.8.

7.2 Methods of test

Tests shall be carried out according to Gulf standard mentioned in item 2.2 as follows:

- determine impurities (dockage) with the relevant device,
- set the air control at Number 4,
- set the feed control at Number 6,
- use the Number 6 barley scalper riddle,
- use the Number 8 sieve in the top sieve carriage,
- use the Number 6 sieve in the middle sieve carriage,
- use no sieve in the bottom sieve carriage.

In case of the material which passed over the middle sieve contains mustard seed or wild buck wheat and/or similar sized seed, it shall be rescreened over the hand sieve (small buckwheat) having 1.980 mm (diameter of inscribed circle) equilateral triangular perforations. In this screening process, place the material on the sieve at the upper edge; then, holding the sieve at an angle of from 10 to 20 degrees, work the material down over the sieve by a gentle side-sieving motion. The barley and other material which remains on top of the hand sieve shall be returned to the cleaned sample and all of the material which passed through the hand sieve shall be considered as dockage.

The dockage will then consist of the material other than barley that passed over or was caught in the middle, the material that passed through the middle sieve, and the material that passed through the hand sieve when used as a reclaiming sieve.

- detection of the radioactivity levels shall be carried out according to GSO mentioned in item 2.10.
- Detection of the mycotoxins limits shall be carried out according to GSO mentioned in item 2.11.

7.3 Tests

Tests shall be carried out on the representative sample taken according to item 7.1 to determine its conformity with all items of this standard.